

What is claimed is:

1. A device for determining the concentration of heparin in a fluid sample, comprising:
 - 5 a container for holding the fluid sample;
 - a container for holding the dye solution;
 - a mixer for mixing the fluid sample and the dye solution;
 - an illumination source for illuminating a mixture comprising the fluid sample and the dye solution with electromagnetic radiation having a substantially continuous range of wavelengths in the visible range;
 - 10 a detector for detecting the absorption spectrum of the mixture within the substantially continuous range of wavelengths;
 - a recorder for recording the absorption spectrum of the mixture within the substantially continuous range of wavelengths; and
 - 15 a calculator for calculating a spectral parameter,
 wherein the value of the spectral parameter is indicative of the concentration of heparin present in the fluid sample, and the spectral parameter is representative of both the reduction in the absorption of the free dye in solution and the increase in the absorption of the dye-heparin complex in a method in which the dye solution is added to the fluid sample to form a mixture of sample and dye, and the dye interacts with the heparin in the sample so that the absorption spectrum of the mixture of sample and dye in the visible range varies as a result of the interaction in a manner quantitatively dependent on the heparin concentration.
- 25 2. A device according to claim 1, wherein the illumination source for illuminating the composition comprises at least one light-emitting diode having substantially continuous multiple wavelengths in the visible range.
- 30 3. A device according to claim 2, wherein the illumination source further comprises at least one diode emitting light in the red region.
- 35 4. A device according to claim 1, wherein the container for holding the fluid sample comprises a hollow fiber filter with a porosity to separate the corpuscular portion of blood from the plasma.

5. A device according to claim 4, wherein the device further comprises a holder for holding a detergent solution and a holder for holding a waste solution.

5 6. A device according to claim 1, wherein the device further comprises a computer.